

ABSTRACT
LATENT INKJET FORMULATION AND METHOD

5 A latent or "invisible ink" security marking formulation is provided using a phosphor with distinct emissions characteristics including visible emission due to excitation at a particular invisible wavelength. An insoluble inorganic phosphor with this or a similarly distinct emission characteristic is milled to a small particle size, preferably less than one micron particle diameter, and is combined with a carrier at very low pigment concentration, for example one percent by weight of the ink formulation. Preferably the pigment is cropped to resin particles in a binder. This ink formulation is diluted by a volatile solvent and applied using a conventional inkjet printer of the type used to mark codes on packages and labels. To test for security purposes the printing is irradiated and a response according to the predetermined characteristic is noted (or not noted) to detect security information. The marking is not immediately apparent and without knowledge of the specific phosphor used is difficult for a counterfeiter to reproduce.

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